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VI.—*Communications respecting the Geography of Southern Abyssinia.* By Dr. C. TILSTONE BEKE. Communicated by the African Civilization Society.

1. *Notes on the Geography of Shwá.*

Ankóber, 3rd March, 1841.

IT is with no small satisfaction I sit down to write to you from this country. When I wrote from Fíálu I had really some doubts whether I should ever reach it: not that I absolutely feared for my life; but it seemed probable that difficulties would be thrown in my way which might oblige me to return. Fortunately the father of Mohamed Ali (in name my protector, but in reality the source of all the obstructions I met with) was not at home, and I was allowed to continue my journey.

I reached Fárri in 47 days from Tajúrrah: I was in hopes to have arrived here in time to observe the eclipse of the moon, which took place on the 5th of February; and I did reach Fárri, having performed the distance from Dybhlín to that place in 24 hours; but the weather was so bad that I could do nothing. I arrived at Fárri just in time to escape the short rainy season, which continued from the day of my arrival till the day before yesterday—25 days in all. As I travelled just before it began, you may conceive I had drier weather than Messrs. Isenberg and Krapf. This may account for my meeting no elephants till I came to the shores of the Hawásh, whereas they found them a long way off. That river I understand is at present so much swollen that a Bedawi caravan on its banks is unable to cross it.

I flatter myself that the Map of Captain Harris and the Table of Observations\* I now forward to you will be allowed to be a valuable addition to the geography of Africa. When I get my notes in order you shall have a number of bearings, and also, perhaps, some slight alterations and additions to the map; but I apprehend it is on the whole pretty correct. My observations cannot be very far out, though you will make allowance for a young observer, who is short-sighted and has only a small instrument. Whatever my imperfections, you may rely upon my being a strictly conscientious traveller. I put down just what I observe, and shall be the first to point out my own mistakes whenever I

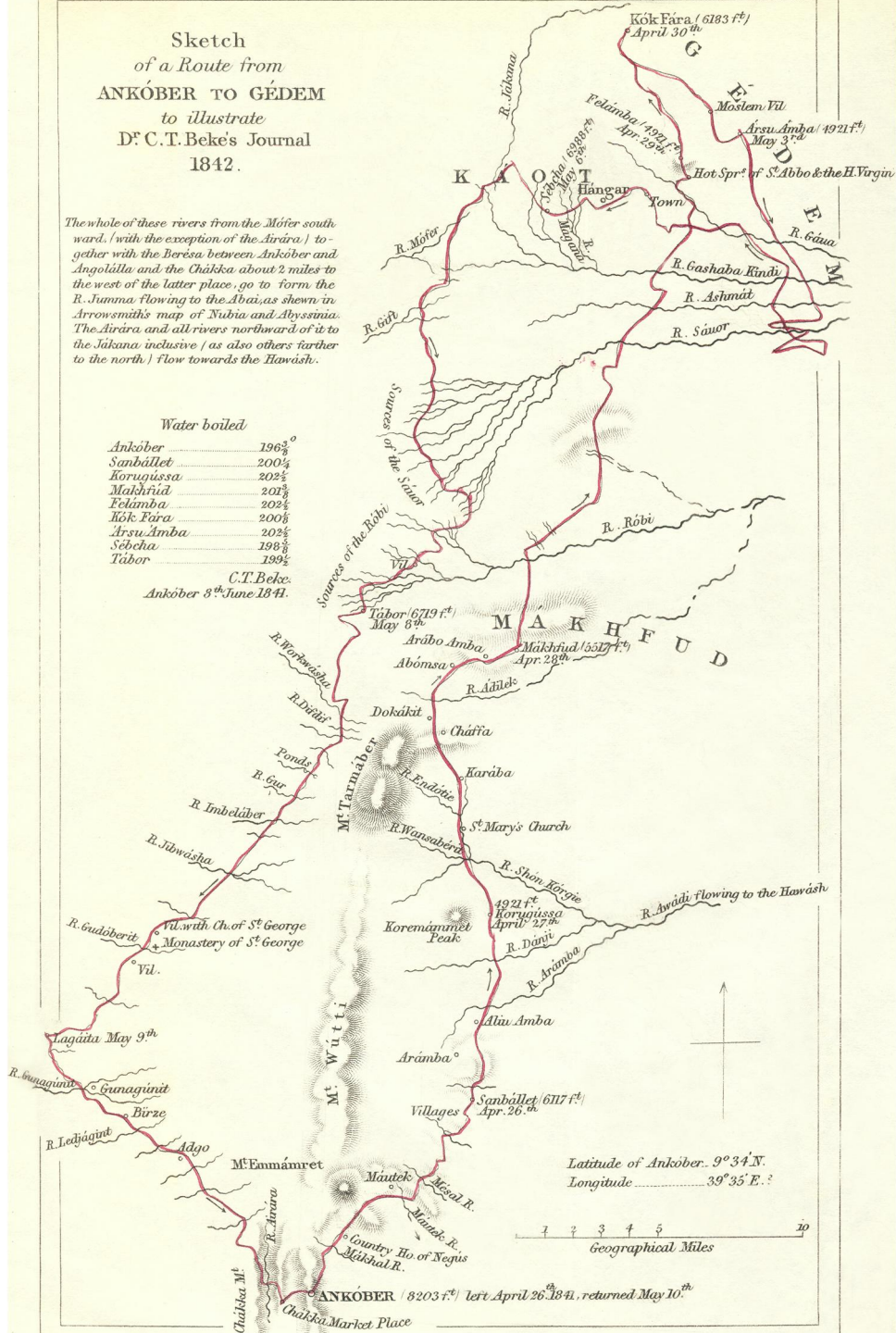
\* Along with Dr. Beke's letter was received a copy, made in the Chief Engineer's Office, Bombay, of the "Map of the Route from Tajúrrah to Ankóber, of the Mission under Captain C. Harris, to the Coast of Shwá, 1841; surveyed by Assistant-Surgeon R. Kirk and Lieut. Barker, I.N." It has been deposited among the Society's charts. The astronomical and meteorological observations alluded to are given in an appendix to Dr. Beke's communications.

Sketch  
of a Route from  
ANKÓBER TO GÉDEM  
to illustrate  
Dr C.T.Beke's Journal  
1842.

*The whole of these rivers from the Mofer south ward, / with the exception of the Abirā / together with the Beresa between Ankober and Angolalla and the Chäika about 2 miles to the west of the latter place, go to form the R. Jumma flowing to the Abaias shown in Arrowsmith's map of Nubia and Abyssinia. The Abirā and all rivers northward of it to the Jikana inclusive / as also others farther to the north / flow towards the Hawash.*

<i>Water boiled</i>	
<i>Anköber</i>	196 $\frac{3}{4}$ <sup>o</sup>
<i>Sanbállet</i>	200 $\frac{1}{4}$
<i>Korugüssa</i>	202 $\frac{1}{2}$
<i>Makhrüd</i>	201 $\frac{3}{8}$
<i>Felamba</i>	202 $\frac{1}{4}$
<i>Kök Fära</i>	200 $\frac{5}{8}$
<i>ArsuAmba</i>	202 $\frac{1}{2}$
<i>Sébcha</i>	198 $\frac{3}{8}$
<i>Tábor</i>	199 $\frac{1}{2}$

C.T. Becke.  
Ankober 8<sup>th</sup> June 1844.



find myself in the wrong. My pocket thermometer is broken; that of Newman had the upper end chipped off, but fortunately has not been rendered unserviceable. I have, however, sent to Aden for others; and having heard that the Negus has a barometer which belonged to the late Mr. Airston, will inquire about it, and if it is in existence make use of it.

By my observations you will perceive that the latitude of  $9^{\circ} 36' 30''$  N. may pretty safely be assumed for Angolálla. Guráge, I am told by a native, is 8 days to the W. (and perhaps a little to the S.) of Angolálla. Léimu (Lím-moa?) is said to be 3 or 4 days beyond it. The governor of Guráge, who arrived at Angolálla just before Mr. Krapf and I left, told us that he (an old man) had travelled from Guráge to Angolálla on foot in 4 days.

Combes and Tamisier were really in Shwá, and consequently were the first European visitors since the time of the Portuguese Jesuits. After them came Dufé (also a Frenchman), who died at Jidda; thence Isenberg and Krapf (Germans); next Rochet; and lastly, myself, being the first Englishman. Mr. Airston and Kielmaier died, you know, on the road; the former at Fárri, the latter at Amáile.\* As I am the first Englishman who has reached Shwá, so I believe I am the first traveller who has had it in his power to give something like a satisfactory account of its geographical features. Fátigar, belonging to Shwá, I hope to visit, and lay down at last the course of the Portuguese correctly.

You will perceive that I make Angolálla 8400 feet above the ocean, and Ankóber only 8200. This is quite against the evidence of the senses; and Mr. Krapf on our road hither pointed out to me the height of the Chakka mountains and of Ankóber, and asked how it was possible for Ankóber to be lower than Angolálla: nevertheless I had my doubts, which were soon confirmed on my arrival here. It is true Ankóber is situated in a high mountainous country; but the country at the western base of the Chakka mountains is more elevated than that from which they rise on the E. side, and ascends gradually as far as Angolálla, which, though in an apparently lower position (situated on an undulating plain), is in reality higher than Ankóber. I cannot say how much further to the westward the ground continues to rise; but the Chakka mountains are the water-shed between the Hawash and the Nile; and the Berésá, which we cross on the road to Angolálla, is an affluent of the latter.

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\* Dr. Beke asks in his letter, "Did Martin, a German, come through Gondar and return the same way?" The question appears to refer to Martin Bretzka, a hunter in the employment of Dr. Rüppell, of whom that traveller says, in the Preface to the second volume of his *Travels in Abyssinia*—"he returned at my expense to Abyssinia in 1835, and is reported to have penetrated from Gondar to Shwá in 1837."—ED.

Fancy my finding here, within 10° of the line, dog-roses, honeysuckles, and jasmine; and blackberries in the hedges, stinging-nettles in the ditches, and buttercups in fields of grass quite as fine as those of England. But there is every climate here within the extent of a few miles, and the country will produce everything. Lower down are cotton-fields; and in the valleys limes, tamarinds, the sugar-cane, &c.

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## 2. *Information respecting the Countries S.W. of Shwá.*

*Angolálla, May 29, 1841.*

THE Negus having sent for me to prescribe for him and several persons about the court, I have had an opportunity of obtaining from one of his slaves, a native of Naréa, some information respecting the place of his birth, and the surrounding countries.

Dilbo, the slave in question, was taken from his native country about ten years ago; he had a son before he left it, and has at present the appearance of a man from twenty-seven to thirty years of age. He retains perfect command of his language, which is a Galla dialect, differing from that spoken by the tribes dependent on Shwá. Limma, the native country of Onáre, from whom M. Jomard obtained the information he has published about the Galla, is well known to him; it is a mountainous country, forms part of Naréa, and the language is the same that is spoken throughout that kingdom. Dilbo had little difficulty in understanding many words and sentences in M. Jomard's memoir (disfigured though they be by misprints, &c.) which were unintelligible to M. Krapf and his Galla servant, who is a native of Shwá.

Naréa is inhabited by Galla: the king and most of his subjects are Mohammedans. They are circumcised: the pagan Galla both in Naréa and Shwá are not. M. Krapf and his Galla servant corroborate this account, though contradictory to the statement of Onáre; and observations of my own incline me to believe that the Galla never are circumcised except in the event of their becoming Christians or Mohammedans.

The average elevation of Naréa above the sea is less than that of Shwá, and the climate is consequently warmer. Dilbo compares it to that of the market-place of Aliu Amba (6 miles E. of Ankóber) frequented by Adál (Dankáli) merchants, who find Ankóber disagreeably cold. Naréa is very fertile, and contains large forests of coffee-trees. Iron, which is wrought by the natives, is found there, but no other metal, so far as Dilbo was aware.

The rainy season lasts six months. The inhabitants are of various shades of colour: some nearly black; others, to use Dilbo's expression, nearly as red (we should say white) as ourselves. The currency consists of pieces of rock-salt (amole) from Tigré, which are brought by caravans from Gondar and Gódjam; but in the retail dealing of daily life barter prevails to a great extent. A good slave may be purchased, according to Dilbo, for 30 amole (6s. sterling). Austrian convention dollars with the head of Maria Theresa find their way thither, but are not in general circulation as in Abyssinia.

Dilbo states that beyond Naréa to the W. and S. there is a very large river which he calls the Gó-job. He represents it as rising in the country of Góbo; flowing through Gúfte and Tham-bára; next between Naréa and Káffa, and then beyond Janjero, to "the country of the Arabs," by which of course he means that it reaches the shores of the Indian Ocean, frequented by the Arabs. According to Dilbo the Gó-job is as wide as from this place to Chérkos (about 3 miles English), and is crossed in boats, capable of containing fifty or sixty persons, in which they transport horses, mules, grain, cloth, and all sorts of merchandise. These boats are cut out of a single tree, and the construction of one takes a whole month. The inhabitants of Káffa are pagans, but not Galla: their language is different, and they are circumcised. The country lies higher than Naréa, but the inhabitants are of all shades of colour. Beyond Káffa the Gó-job is joined by the river Omo, coming from the country of Dóko, of the savage state of the inhabitants of which Dilbo relates strange stories. They appear to be simple and easy victims of the stratagems of the slave-merchants.

Dilbo states that the caravans from Gondar and Gódjam arrive in Naréa at the market-place of Súkka, having on their way passed through Gúderú, and crossed two rivers, the Dámbi and Gibbe. The latter river he distinctly and repeatedly said has its course to the Abái, and not southward; and its sources, which he has himself visited, are in the heart of Naréa. When information is, as in this case, so totally opposed to what we have been in the habit of believing to be the fact, one can only repeat what one has heard. M. Krapf and I took every precaution, by repeating our questions in different forms, by making him draw the courses of the rivers on the ground, &c., to elicit the truth. He was uniformly consistent in his statements. Dilbo was not further acquainted with the particulars of the caravan-route to Gondar, having never travelled it: he was brought to Shwá through the country of the Galla.

He gave us the route along which he was brought, and the time spent in the journey:—

	Days.	Days.
From Naréa to Nénno . . .	3	
Stopped there . . .		5
„ Nénno to Agabja . . .	2	
Stopped there . . .		2
„ Agabja to Addiá . . .	1	
Stopped there . . .		1
„ Addiá to Sóttó . . .	1	
Stopped there . . .		5
„ Sóttó to Roggia . . .	1	
Stopped there . . .		30
„ Roggia to Gólbe . . .	1	
Stopped there . . .		1
„ Gólbe to Chakka market . . .	1	
	<hr/> 10	<hr/> 44

The journey from Naréa to Ankóber occupied in all 54 days, but only 10 of them were travelling days. Dilbo says the whole distance might easily be accomplished on a mule in 8 days.

Dilbo's account differs so entirely from that of Onáre, as reported by M. Joinard, that any attempt to reconcile them, or patch up an idea of the country by combining them, would be idle. In corroboration of Dilbo's statements, it may be remarked that a map constructed by M. Krapf from materials collected by him in the course of several journeys within the kingdom of Shwá, places Roggia, Sóttó, Addiá, and Nénno nearly in the same situations that he does. When Messrs. Krapf and Rochet accompanied the Negus on his expedition against the Mécha Galla in January, 1840, they approached within one day's journey of Gundéberat, from a high mountain in which district Dilbo says the country of Naréa is visible.

That a large river does actually flow to the eastward beyond Naréa and Janjero may be taken as an established fact, from the coincidence in this respect of many accounts, corroborated by information to the same effect, obtained by M. Krapf from natives of the latter country. Janjero is the name given by Dilbo to the country named Gengero or Zingero (properly Zhenjeró) in the maps, and he says it is so called by the natives themselves.

### 3. Notes on a Journey from Ankóber to Gédem, in Shwá, in April and May, 1841.

IN the course of last Lent Mr. Krapf and I learned that the Negus was sending a body of men to Gédem, ostensibly for the purpose of shooting elephants, and we applied for permission to accompany the expedition. Our application was refused; but

towards the end of April he sent to ask when we wished to go to Gédem to shoot elephants. We replied that we were ready to start immediately, and accordingly two days afterwards we left Ankóber. Subsequently we found reason to believe that the Negus in sending us intended to promote a political object of his own; we were actuated more by a desire to visit an unexplored country than by the mere love of sport; and thus the purposes of both parties were served, the elephants which we did *not* shoot being merely a pretext on either side. We left Ankóber on the morning of Monday the 26th of April, accompanied by six servants and an *affero* (one of a body of 400 men whose duty is to wait upon foreigners) appointed to escort us. Between guns and pistols we had altogether eight *bouches-à-feu*, and it will appear from the sequel that these formed a very important item in connexion with our mission. I will give the proceedings of our journey day by day as they occurred.

*April 26th.*—Left Ankóber at 9 $\frac{3}{4}$  A.M., and descended winding and skirting the range of mountains on which Ankóber stands. In 1 hour we came to Mákhál Wans (River), the meadows in the neighbourhood of which belong to the Negus and supply fodder to his stables. The Negus has also a country house here, placed, as all dwellings in this country are, on account of the rains, on a small *amba*, or conical hill. Passing this we kept ascending, till we reached the ridge which divides the river Mákhál from the Máutek, where we had to alight and descend the steep side of the mountain on foot, leaving Mount Emmámret and the village of Máutek to the left. At 1 P.M. we crossed the Máutek, running nearly N. and S. It joins the Dinki, which is crossed on the road from Ankóber to Goncho. M. Emmámret, which is the highest point of the range of mountains running from Ankóber northward, is extremely high, and its base is covered with thick forests, from which the city is supplied with wood. Its peak is visible at a considerable distance beyond the Hawásh. We now ascended nearly S.E., and again descended to the Mésél (whetstone) River, so called from the stones in its bed being used to sharpen knives, &c. At 3 $\frac{3}{4}$  P.M. we stopped near a village where we were detained  $\frac{1}{2}$  an hour; and in  $\frac{1}{4}$  of an hour after leaving it we reached the river Sanbállet, where we stopped for the night. The bearings of our route being given in the accompanying map, need not be repeated here. Our road to-day lay along the eastern declivity of the mountains: to the E. of our route the country continued to fall towards the Hawásh and the country of the Adál, or Danákil.

*27th.*—Left Sanbállet at 8 $\frac{3}{4}$  A.M., and proceeding northward crossed a small stream which forms a waterfall, nearly if not quite 200 feet in height, and afterwards continued winding along the



edge of precipices. The whole country is a mass of mountains. In about 1 hour we came to a fine view of the Adál country, lying flat, or seemingly flat, to the E. of our route. The forms of some of the intervening mountains were very remarkable: one in particular was perfectly conical, and looked more like an artificial mound than a work of nature. The road in parts was so bad that our mules could with difficulty find a practicable path. On our left was the range of Mount Wútti. We had now a long steep descent on foot, picking blackberries (not yet ripe) from the hedges as we went along. The sun being now to the N. is extremely perplexing to me, who am not accustomed to see it in that direction. Still descending, we passed at  $11\frac{1}{4}$  the village of Aliu Amba (this is not the market-place of that name), the inhabitants of which are chiefly Moslems. We here saw a large plantation of capsicums, of which so great a quantity is consumed in Abyssinia. The surrounding country is rich and well cultivated; the Mohammedans being more industrious than the Christians and not having so many holidays. After stopping near Aliu Amba about  $\frac{1}{2}$  an hour, we went down a steep descent into a valley, and at  $12\frac{3}{4}$  P.M. we reached the river Arámba, which is at present about 10 feet broad and from 1 to  $1\frac{1}{2}$  foot deep. Its course where we crossed it is nearly E. From this stream we ascended slightly, and then descended to the river Dánji, which is much larger, being from 15 to 20 feet wide and from 2 to 3 feet deep, and very rapid. We crossed the Dánji at 2 o'clock, and thence ascending northward in  $\frac{3}{4}$  of an hour more reached the village of Korugússa, the residence of the Walasma (or *Moslem* governor) Mohammed Sheikh. Before reaching this place we passed through some extensive fields of cotton which was just beginning to blossom. Korugússa is situated at the foot of the mountain-peak Koremámmet. The hill is westward from the village, and beyond it is another called Kóru. The language spoken here is not pure Amharic, but the dialect of Argóbba, the same as is spoken at Férrí. The two rivers we passed to-day, and a third, farther to the N., called the Shonkórgie, unite and form the Awádi, an affluent of the Hawásh. The Shonkórgie is said to come from Mount Tarmáber, the Dánji from Mount Wútti, and the Arámba from the village of Wórra Kottela (?), near Mount Emmámret. In the rainy season the Dánji is impassable.

28th.—Left at  $7\frac{1}{2}$  A.M. and continued descending nearly in the direction of N. at first on ploughed land, then through a rich fertile valley along a lane with hedges on each side of honeysuckles and jasmine, which perfectly perfumed the air. The river Shonkórgie was before us, and the country around was beautiful. The ploughed land extends almost close to the river-side, to which the descent is gradual, whilst the mountain on the N. side falls ab-

ruptly to it. It is scarcely possible to fancy oneself in Africa. At 8 $\frac{3}{4}$  A.M. we reached the river Shonkórgie at the point where it is formed by the union of three streams, the Endótie, the Wansa-bérit, and another coming from the S.W. The bed of the Shonkórgie is very broad, and the water runs in a number of small channels. After crossing it we had to stop  $\frac{1}{2}$  an hour to repack our baggage-mule, and whilst thus delayed a heavy shower came on. It was surprising to see the almost instantaneous effect on the waters of the river; they came rolling down in one wave; and where we had just before passed without the slightest difficulty, a man who wanted to cross after us could not find a ford. We now proceeded up the valley of the Endótie, which rolled far below us between precipitous banks. At 9 $\frac{3}{4}$  A.M. we descended to the river, which had now, in consequence of the rain, become, as regards the body of water and the rapidity of the current, as large as the Dánji, at the time of our crossing it. The Endótie rolled along a muddy stream frightfully rapid, and we had to ascend its bed, which we did northward, crossing the stream repeatedly. At 10 o'clock we passed the church of St. Mary, on the E. bank of the river; the priests invited us to stop till the waters had abated, but the worst was now over, as the stream was getting less every moment, and we therefore kept on our way. At 10 $\frac{1}{4}$  A.M. we left the main stream, which here comes from the N.W., and went along the banks of a tributary. The country now became more open, and in  $\frac{1}{2}$  an hour more, having passed a small waterfall to the right, we ascended a steep, where we stopped to look around us. Close to us on the E. lay the village of Karába, on a mountain of the same name; to the W. was Mount Tarmáber; and the higher portion of Wútti bore S. 25° W. We still kept ascending, and at 11 $\frac{1}{2}$  A.M. came to the high land forming the water-shed between the Awádi and Róbi rivers. We now proceeded through a beautiful country of fertile meadows and fields of corn, with trees studding the whole, and hedges dividing it; in fact it was almost an English prospect, only that the hedges here are all of jasmine, roses, and honeysuckles in full bloom. A little after 12 we stopped near the village of Dokákit to let our mules graze in a beautiful meadow of grass and white clover. After resting for  $\frac{3}{4}$  of an hour we proceeded, descending along the caravan-road, from Aliu Amba (the market) to Anthiókea. After crossing a couple of small brooks forming the river Adilék and continuing through meadows, we at 2 o'clock reached Abómsa, the residence of a governor, to whom our *affero* brought orders to furnish us with an escort, that we might first see what elephants were to be met with on the banks of the Róbi. *Fortunately* he was from home, and we therefore went farther, glad enough to be spared this useless delay. From Abómsa we de-

scended a steep, passed the village of Arábo Amba ; and then, after going round a little way S.E., ascended (N. 60° E.) to the residence of the Governor of Mákhfud, where we arrived at 3½ P.M.: this is the Marfood of the maps. The village, or town, lies to the E. of the Amba, on which the Governor's residence stands, and the district bearing the same name extends to the E. The flies here (the common house-fly) are quite a pest ; the swarms are numberless, and one is not a moment at peace for them.

29th.—Quitted Mákhfud at 6½ A.M., and, descending the Amba on foot on account of its steepness, we in ¼ of an hour mounted our mules and proceeded along a rich valley, of black soil, finely cultivated. Gradually the country became more barren ; and as we approached the Róbi we passed over a mere waste. At 8 A.M. we crossed a small branch of that river, and, a few minutes later, the main stream, which was then about 15 feet wide, and from 1 to 2 feet deep. The stream winds E.N.E., through a broad flat valley. After crossing the river we traversed a wild plain, overgrown with shrubs and herbaceous plants, amongst which we lost our way ; but at 8½ A.M., having crossed a deep ravine, the dry bed of a stream, we recovered it again. We now continued for a time nearly parallel with the course of the Róbi, through a wood of acacias, the thorns of which tore our faces, hands, and clothes. About 9 o'clock we crossed the dry bed of a larger stream than the former, after which the ground becomes more fertile, and begins to be cultivated. The mountains all fall to the N. and E. At 10 o'clock we left the proper valley of the Róbi, and went up a branch plain or valley, which becomes woody as we ascend ; and in ¼ of an hour we came to a place which we were told was infested by robbers and murderers. That the wilderness (Gédem has this signification in the Geez) is the place of refuge for all the fugitives and bad characters of Shwá is a fact, but the danger is much exaggerated. The government of Shwá has its faults ; but throughout the greater part of the dominions of the Negus a single traveller may pass unarmed with perfect safety. At 11 o'clock we crossed a large wady, and began to ascend through acacias, colqualls, and euphorbias ; then, winding round the head of a glen, we at 12 o'clock reached the water-shed between the Róbi and the Saúor, and began descending into the valley of the latter river. In ½ an hour more we reached it. Its bed, which is very wide, is divided into several channels, the principal one being about 10 feet wide, 1 foot deep, and tolerably rapid. Here we stopped ½ an hour to water our mules, and to lunch. At 1 P.M. we began moving over the plain to the N. of the Saúor. About 1½ P.M. we crossed the A'shmat, about the same size as the principal stream of the Saúor ; and, in ½ an hour more,

the Gashabakíndi. From hence we continued for  $\frac{3}{4}$  of an hour over the plain, towards Felamba, our place of destination for the night; but hearing of some hot springs in the neighbourhood, we turned off for the purpose of visiting them; and after passing through some cotton-fields we at  $3\frac{1}{2}$  P.M. reached the Gáua, about the same size as the A'shmat and Gashabakíndi. This stream we ascended a little way till we came to a division of the channel into two parts, when, having crossed the principal one, we stopped in the island formed by them to shoot Guinea-fowls, just as a shower of rain came on, when we saw, as on a former occasion, the waters come down in one large wave, raising the entire level of the river at least a foot as it descended. We now continued up the bed of the stream till  $3\frac{3}{4}$  P.M., when we turned up a small water-course to the hot springs of St. Abbo and the Holy Virgin. The spring called after St. Abbo runs out of a grassy bank by a wooden spout, in a constant stream of probably 2 inches in diameter, and at a height which admits of persons placing themselves under it, to whom it serves as an excellent *douche* bath. The spring of the Virgin is on a lower level, and is therefore formed into a pool below the surface of the ground, in which the patients can immerse themselves. The water of both springs is so hot that it cannot be borne comfortably at the first moment: it is therefore probably of the temperature of  $100^{\circ}$ . Both Mr. Krapf and I tasted it several times, but could detect neither taste nor smell. It is said, however, that when drunk in quantities it is purgative. The offerings made by persons using the springs (which are quite voluntary) go to the governor of Felamba (*i. e.* *boiling* mountain). After remaining at the springs about  $\frac{1}{4}$  of an hour, we began to ascend the steep Amba, from the foot of which these springs issue, which must be at least 1000 feet above the level of the Gáua. We were a full hour reaching the top, and arrived at 5 P.M. after a hard day's work.

30th.—Left Felamba at 9 o'clock A.M.; the road still ascending. To the N.E. lay the country of the Galla, tributary to the governor of the E'phiata, who are at present in a state of rebellion, in consequence of his having seized their cattle. We had an extensive view of the Galla and Adál country; but in consequence of the mists we could not distinguish objects. To the left of our road lay mountains, round which we kept winding, and between which the valleys formed almost perfectly funnel-shaped depressions. At  $11\frac{1}{2}$  A.M. the residence of the governor of Gédem bore N.  $5^{\circ}$  W. of us, and we stopped to fire a salute (as we usually did before arriving at our resting-places), and then proceeded, first descending into the valley below us, and afterwards ascending the Amba, on which it is situate. It is called Kók-Fára. E'phiata is said to bear due N. one day's journey; and

the river Bérkena, the boundary of the kingdom of Shwá, is another day's journey beyond E'phiata, which is, however, the last seat of government northward, the country beyond it on the frontiers of Shwá, towards the dominions of Béru, the ruler of Argóbba, being a wilderness like the valley of the Róbi and the Saúor. The province of Gédem lies to the E. and S.E. of this place, being in great part occupied by Gallas, tributary to the Negus.

*May 1st.*—The governor, who was from home when we arrived, did not return yesterday; and a messenger from him this morning says he will probably not be able to come till to-morrow. We begin to suspect the object of our being sent here. Should the governor of E'phiata not be strong enough for the rebellious Gallas, the governor of Gédem will have to assist him; and even though we do not take part in the war, our presence will intimidate the rebels. The governor of Gédem possesses four guns, three matchlocks, and one flint. The governor of E'phiata has only *three*. We have in all *eight* fire-arms. But Mr. Krapf and I have fully made up our minds under no circumstances to take any part in the conflict. I brought my sextant with me, in the hope of being able to ascertain the latitude of our various stations on the road; but it is quite out of the question, although I am up a great portion of the night, in case a clear moment should offer me an opportunity of observing.

*2nd. (Sunday).*—The governor arrived at 9 o'clock A.M.; Mr. Krapf has been so unwell that he has made up his mind to return without delay to Ankóber.

*3rd.*—Mr. Krapf a little better, but still unwell. He proposed that he should give up our intended expedition; but this the governor would not hear of. He had received orders from the Negus to accompany us into the wilderness, and accompany us he must and would. In the afternoon we descended to A'rsu A'mba, which we reached after a ride of  $2\frac{1}{2}$  hours: orders were immediately sent down to the Gallas to assemble for the purpose of escorting us, and at 8 o'clock the túltállo, or hunting-cry, was given.

*4th.*—At  $5\frac{3}{4}$  A.M. we started on our hunting expedition, accompanied by the governor and a considerable escort, and were joined on the road by large parties of his retainers and of Gallas, the latter mounted on small but spirited horses. When they approached the governor they set up a loud cry, and the chiefs dismounted and gave him their hands. The chiefs wore dresses of honour, given them by the Negus, consisting of pieces of blue and red woollen cloth, of about the size and shape of the sheep-skins which they usually wore over their shoulders, and of which these took the places. It would be of no use to relate how

we went on foot through the wilderness or forest on the banks of the Saúor, following after elephants, which, roused by the cries of our scouts and forerunners, gave us no opportunity of seeing them, although we had sufficient evidence of their proximity. At 11½ P.M., being heartily tired of our useless labour, we began our return. The governor had gone on before, but we soon came up with him; and before our escort left us we stopped to deliberate as to when our next hunting-party should take place. We wished much to leave, being perfectly convinced that, with 300 or 400 men scampering about the wood in all directions, and calling out at the height of their voices to one another, it was perfectly ridiculous to think the elephants would allow us to approach them. But the governor and the chiefs said they would be disgraced if they let us off in this way, and we were obliged to consent to come down again on Thursday morning. We now learned that the war with the Gallas was over, they having been defeated with the loss of *thirteen* men, the governor of E'phiata losing six.

5th.—Remained at A'rsu A'mba, where we were the greater part of the day surrounded by people, who came to see us and all the wonderful things we have about us.

6th.—Another day's fatigue, to no purpose; the people kept calling on us to follow, which we did through the rivers and swamps (now much deeper on account of the rain) until we were so heartily tired that we refused to go any farther: and we did not see a single elephant. Our escort went on to inform the governor, and now we had a chance; two elephants presented themselves to our view, but we did not get a shot at them. I mention these trifles because we intend to make them a reason with the Negus for allowing us to go to Búlga to see whether we cannot be more successful with a *small* escort. If he permit us, we shall see the south-eastern portion of the kingdom; which is of more consequence than shooting a score of elephants. Hearing that the governor was gone on, we proceeded to join and take leave of him; our baggage having been sent on this morning to Sébcha, where we intend resting this night. After crossing the Gáua twice, we came, about 2½ P.M., to the spot where we turned off from the road to visit the springs of Felamba, and soon after began to ascend, which we continued to do till 3½, when we reached a considerable town named ———,\* belonging to the queen dowager, who has considerable possessions in various parts of the kingdom. Here we stopped at the governor's house to refresh, and were much pressed to remain for the night, but we declined; and, after ½ an hour, proceeded, still ascending. At 4¾ we went round a little way in the direction of

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\* The name is left blank in the MS.—ED.

N., at the back (left) of the mountain we had ascended, and then returned S.W. from the head of the glen round another. We still kept ascending, but there was higher ground yet to the N.W. of us, as will appear from an inspection of the map. At 5 o'clock we passed Hángar, a market-town, and then proceeded W. and N.W., over tolerably level ground, passing the governor of Káót's residence, situated on a high mountain to the right. We next proceeded over swampy ground, formed by small streams falling from the mountains to the N. of us, the principal one being called the Mágana, which goes (as indeed they all do) to form the Gashabakíndi. After ascending the steep mountain W. of this stream, we, at 6 P.M., reached the house of the alaka of Sébcha, a friend of Mr. Krapf. The village of Sébcha is placed in a sort of *cul de sac*, formed by the surrounding mountains, standing, like all villages in this country, on a separate amba. The surrounding district is called Káót.

7th.—Our friend the alaka would not allow us to proceed this day; and as I did not like to leave the neighbourhood without a single observation, I was not sorry at his friendly detention. During the night I had the only *chance* of an observation in the whole course of the journey—an observation by the double altitude of the moon's lower limb when *close on the meridian* was  $104^{\circ} 28'$ ; the index error of my sextant being  $2' 30''$ . This would make the latitude  $10^{\circ} 11' N.$ ; which, as it corresponds very well with Mr. Krapf's and my own dead-reckoning, may be taken as the probable latitude of Sébcha. The clouds prevented me from observing the *exact* meridian altitude; and every other night has been too much overcast to admit of observations.

8th.—Left Sébcha at  $6\frac{1}{2}$  A.M., and kept ascending the mountains behind it. In  $\frac{1}{4}$  of an hour we reached a small waterfall, which we crossed, and then went over level ground to a second, which we passed  $\frac{1}{4}$  of an hour later. After a further steep ascent of  $\frac{1}{2}$  an hour we reached a point where we had a prospect behind the mountain (to the N.E.), as well as to the front. Still ascending, we reached, in rather more than another  $\frac{1}{4}$  of an hour, the sources of the river Jákana, which flows to the N. of Kók Fára. Before us was another range of mountains. After proceeding for some distance, nearly on a level, we, at  $8\frac{1}{2}$  A.M., crossed the head of a valley, and a stream running to the S.E. to join the Gashabakíndi, and then, ascending round a mountain to our left hand, we, in  $\frac{1}{2}$  an hour more, reached a level plain, in which is the water-shed between the Abái and the Hawásh. Our road now lay along this plain, which is a swampy moor, with low mountain-peaks on either side. The elevation must be greater than that of Ankóber, if I may judge by the temperature and the vegetation, which consists almost exclusively of low firs, heaths, and ferns. The air was exceedingly bleak and cold. At 9 A.M. we

crossed the sources of the Mófer flowing S.W. to the Abái; and, in  $\frac{1}{2}$  an hour more, those of the Gashabakindi, flowing to the Hawásh; whilst, in another  $\frac{1}{4}$  of an hour, we came to those of a stream joining the Mófer. At 10 $\frac{1}{2}$  A.M. we came to the sources and descended the valley of the Gift, flowing S.E. to the Abái; we left it on the right, and came to another stream running in the same direction. Continuing our route, over ground all springy and swampy, we soon after, 11 $\frac{1}{4}$  A.M., emerged on the *eastern* side of the range, arriving at the sources and over the valley of the Saúor. The difference of temperature was here very remarkable: the passage from the bleak cold moor into the sunny valley of the Saúor was almost like going into a different climate. We now continued for some length of time crossing numerous streamlets, all affluents of the Saúor, the sources of some of which were seen bursting through the sides of the mountains, whilst others came from above, forming small waterfalls. At 1 $\frac{1}{2}$  P.M. we descended by a steep winding path into a beautiful broad valley, extremely fertile and thickly peopled; forming a portion of the drainage basin of the Róbi. Here, after crossing a few small streams, we ascended, winding to the head of another valley, through which flows the largest of the streams which unite to form the Róbi. We now continued winding and crossing several streamlets, and, at 4 P.M., reached the village of Tábor.

9th.—Left Tábor at 6 $\frac{1}{4}$  A.M., going at first over meadow and marsh land, and then ascending till about 7 $\frac{3}{4}$ , when we passed round the side of the mountains and came into the valley of the Workwásha river, flowing to the Abái. The weather was too misty to allow us to see anything at a distance: however, from an eminence to the N.E. of our road 'Anthiókea was pointed out to us, bearing N. 10° E.; and Géshe, N. 5° W. A lake, called Alo Bahr, was said to be in the direction N. 35° W., which, from the accounts given of it, would appear to be of volcanic origin. A small lake is placed nearly in this position in Arrowsmith's map, which is doubtless the same, as we are now very near the route of the Portuguese missionary Olivarez, from whom, I apprehend, the account of it has been obtained. At 9 A.M. we proceeded a little way up the bed of the Workwásha, which, with its sources, we soon left on our left-hand, crossed the head of another small stream, and then the river Dífidif, coming from the E. At near 9 $\frac{1}{2}$  A.M. we crossed a larger stream, and ascended by its side through swampy ground; and, at a little distance farther, crossed some pools forming the source of another stream. The pass of Tarmáber was now on our left, bearing S. 60° E. As we had now reached the high road to Angolálla and Ankóber, we met a number of people: having hitherto, on our road from the



N., met only a few occasional herdsmen of the Negus. Even here, however, the country is devoid of villages and trees, the mountains above being pasture, whilst in the valleys the ground is subjected, but in no very great degree, to the plough. Soon after 10 A.M. we came to the valley of the river Gur, a fine piece of arable land. We next came to the river Imbeláber, which runs to the N.E., and which lower down in its course receives the name of Beshkáli.\* Continuing our way over a plain and crossing another small stream, we ascended a steep for a short distance, and then descended to the Jibwásha, which we crossed at 11½ A.M., just at the junction of the two streams by which it is formed. From this river we ascended for ½ an hour, crossed the valley of another stream, and then, after passing a village, the name of which we could not learn, but where we were informed there was a church dedicated to St. George, we descended rapidly to the river Gudoberát, which we crossed soon after 1 P.M. From it we ascended the steep side of a mountain, passing by an enclosure which to our eyes looked like that of some ecclesiastical edifice. We inquired of some passers-by whether a monastery was not there, and they answered in rather a confused manner that there was not. We afterwards learned that there was a monastery there, and suspect that the persons of whom we inquired on the road belonged to it, and told us a falsehood, lest our large party should have felt inclined to stop and demand the hospitality of its inmates. From its general position and its vicinity to the Church of St. George's, we imagine that this is the monastery of St. George's which appears on the maps. We now proceeded on a level till near 2½ P.M. A severe cold which I caught during the night at Tábor (the place we were given to sleep in being quite exposed to the weather), added to the effects of tramping about the moors and swamps at Gédem, rendered me too unwell to continue our journey. After proceeding therefore a little farther, we turned off to the village of Lagáita, where we arrived at 3½ P.M., and stopped for the night.

10th.—In the morning I was afraid I should not be able to proceed to Ankóber, but as Mr. Krapf was anxious to get home I was persuaded to make the attempt. We left Lagáita at 8½ A.M. After passing through some marshy meadows and crossing a small stream Mr. Krapf pushed on before, leaving me in charge of the servants to follow at a gentler pace. At 9½ A.M. I crossed the river Gunagúnit, and then ascended above the side of the stream, beyond which lay the large village or town of the same

\* Or Beshkáti: the MS. is indistinct. Can this be the Bashelo, which, according to information received by Ruppell (vol. ii. p. 216), joins the Nile three days' journey to the S. of its confluence with the river so named on the map of Combes and Tamisier?—ED.

name, situated in the fork of two streams. The road was now a succession of ascents and descents, but on the whole kept rising, till at 12½ P.M. I reached the highest point, being the water-shed in this direction between the Abái and the Hawásh, when I began descending along the side of Mount Chákka, having the river Airára far below in the valley. The road soon became so precipitous and bad that I was obliged to dismount and descend on foot in the best way I could, supported by two men. At 1¾ P.M., having come to the river, I remounted my mule and then ascended gradually on the other side, till at about 2½ P.M., when, turning short round to the E., I came to the Chákka market-place, and my eyes were greeted with the sight of Ankóber. In ½ an hour more I was at home.

The accompanying map will show our route more in detail; and on the margin of it I have noted the temperature at which water boiled at all our stations except Lagáita. I have not attempted to fill in any of the mountains beyond the central range of the Wútti, as in a country like this, which is altogether mountainous and where every mountain peak has its separate name, the attempt would lead to endless confusion.

This little excursion has been attended with the advantage of determining the position of the water-shed, in Southern Abyssinia, between the rivers flowing westward to the Abái and eastward to the Hawásh. As the longitude of the water-shed in this direction corresponds very nearly with that of the water-shed in northern Abyssinia, it may perhaps be not unreasonable to infer that they are both formed by a continuation of *the same* central high land; in which case it will follow that the sources of the river Takazze will be nearly in the position assigned to them in Arrowsmith's Map of Nubia and Abyssinia, and not so far E. as they are placed in Mr. M'Queen's Map of Africa, or in the little sketch which you forwarded me in a letter of the 4th of February last.\* This is merely my inference from the premises, and it must of course bend before *evidence* to the contrary.

As far as Mr. Krapf has been able to ascertain, Lake Yuái† does *not* give rise to any rivers flowing *southward*: whether its waters join those of the river Hawásh, as shown in the old maps, is uncertain; but at all events the distance between the lake and the river cannot be very considerable.

The name "Gorror" would appear to have arisen from some misunderstanding of Messrs. Isenberg and Krapf, which they

\* The sketch published in the London 'Geographical Journal,' vol. x., to illustrate the route of Messrs. Krapf and Isenberg.—ED.

† The name is written thus (or perhaps Zuái) in Dr. Beke's MS.: the lake here mentioned appears to be the same called Swái in the Society's Journal, vol. x. p. 481.—ED.

afterwards corrected. The old name Hürür is the name used by the Arabians and Danákil, and I believe also by the natives themselves. The Abyssinians say "Harrárgé," which name (Harárgue) will, I believe, be found in the earliest maps, which were formed from the information obtained by the Portuguese in this country. As to the river made to flow past Hürür, I imagine that is the remains of the *Portuguese* Hawásh, and that it has no existence in reality.

In conclusion I cannot avoid advertng to a name which appears in your sketch. Bruce prided himself in the idea that he had visited and described the sources of the Nile: we now know this to be merely a fancy of his own, for the true sources of that great river must be sought for far to the W. In Abyssinia the name *Abái* alone is known, and I trust that, in all future maps sanctioned by the Royal Geographical Society, that name will appear instead of the "Nile," or "Blue Nile," a designation which only serves to perpetuate error.

#### APPENDIX TO DR. BEKE'S PAPERS ON ABYSSINIA.

##### I.—LIST OF INSTRUMENTS.

In a postscript to his communication of the 12th June, 1841, Dr. Beke gives the following list of the instruments and books of reference which he had with him at the time. It is printed here from an idea that it may help in forming an estimate of the confidence to be reposed in his observations and calculations, as embodied in his narrative and map, and in the two following Tables:—

Sextant and artificial horizon.

Azimuth compass.

Pocket ditto.

Two thermometers (now both broken).

One ditto for determining heights by temperature of boiling water.

Pocket telescope (for general use).

Camera lucida (occasionally used: I have made two or three sketches with a 50-feet tape).

A good pocket watch.

Spring balance.

Two small compasses in wooden cases (intended hereafter for presents to natives).

Case of mathematical instruments.

Box of colours.

Ruled paper for maps.

Nautical Almanac for 1840-41-42.

Norie's Epitome of Astronomy and Navigation.

Jackson's Military Surveying.

## II.—OBSERVATIONS ON THE ROAD FROM TAJÚRRÁH TO SHOA, 1840-41.

Date.	Place of Observation.	Meridian Altitude.	Thermometer (Astronom. Day.)					Remarks.
			In Shade. Noon.	In the open Air.			In boiling Water.	
				6 P.M.	About Midnt.	6 A.M.		
1840. Dec. 25	Hanlísáuta . . .	⊙ 109 27 0	91	—	—	73	Water boiled on the shore close to Lake Assal. The water of the lake only <i>simmered</i> at 216°. The wind rose daily from the S.E. about noon, and continued till into the night; but about the middle of the month of February it shifted round to the N.E. The days throughout fine, with rarely any clouds. The nights as follows:—28th, dew; 29th, dew; 30th, cloudy, little or no dew; 31st, dew. 1st January, little or none.	
26	Ditto . . .	⊙ 109 29 0	91	—	—	—		
27	Gungúnta . . .	—	91	83	77	74		
28	Allólli . . .	⊙ 109 55 0	91	83	76	72		
29	Ditto . . .	—	90	82	77	73		
30	Ditto . . .	⊙ 110 8 0	92	84	78	74		
31	Gágade . . .	⊙ 110 22 0	91	82	72	63	211½	
1841. Jan. 1	Ungamárra . . .	⊙ 110 37 15	89	80	72	66	211½	
2	Ditto . . .	⊙ 110 49 0	90	81	74	71		
3	Dalibái . . .	Sirius. 124 22 30	91	82	64	61	211	
4	Hái . . .	⊙ 111 31 45	91	80	64	61	210	
5	Ab'áitu . . .	⊙ 111 51 30	87	80	60	54	210½	
6	Abu Jüssuf . . .	⊙ 112 19 0	88	79	67	62	209½	
7	Sabólla . . .	⊙ 112 48 15	90	82	64	60	210½	
8	Arabdyrra . . .	⊙ 113 13 45	92	83	70	65	209½	
9	Butta'ála . . .	⊙ 113 28 30	88	80	68	62	209½	
10	Dauaileka . . .	⊙ 113 48 15	85	80	69	64	209½	
11	Marahánni . . .	—	85	78	70	67	209½	
12	Am'ádu . . .	⊙ 114 28 30	86	80	69	65	209½	
13	Fiálu . . .	—	85	80	68	64	—	
14	Ditto . . .	—	85	80	65	62	—	
15	Ditto . . .	⊙ 115 39 0	86	79	64	61	208½	
16	Ditto . . .	⊙ 116 3 0	86	80	68	62	—	
17	Barudydda . . .	—	—	82	67	61	208½	
18	Killelámo (above Killelu) . . .	—	—	84	67	57	208½	
19	Ditto . . .	—	—	84	67	59	208½	
20	Horissamadága . . .	Sirius. 126 12 0	—	82	62	52	—	
21	Ditto . . .	⊙ 118 48 45	86	82	62	54	207½	
22	Gyrte'ába . . .	Sirius. 126 19 0	—	78	62	59	207	
23	Gabólli . . .	Sirius. 126 32 30	—	83	67	61	208½	
24	A'írolol . . .	Sirius. 126 49 30	—	81	67	64	—	
25	Ditto . . .	⊙ 121 18 0	83	80	66	58	208½	
26	Adolói . . .	⊙ 122 3 0	84	78	65	55	—	
27	Ditto . . .	Sirius. 127 3 0						
28	Ditto . . .	⊙ 122 34 30	83	74	61	49	208½	
29	Baddicoma (M. Baddi) . . .	—	—	75	59	48	208	
30	Máro . . .	⊙ 123 54 45	85	74	—	67	207½	
31	Mállu . . .	⊙ 124 33 30	84	78	69	59	—	
Feb. 1	Ditto . . .	—	87	81	70	60	207½	
2	Séik 'Otban . . .	Sirius. 127 32 30	—	80	69	60	—	
3	A'u . . .	Sirius. 127 38 30	—	82	73	63	—	
4	Dybhkín Sei . . .	Sirius. 127 45 0	90	—	—	—	207½	
20	Angolálla . . .	Sirius. 127 45 0	—	—	—	—	No rain fell on the journey until the morning of the 5th February, just before reaching Fárrí. Since then there has been rain almost every day; at first in considerable quantities, but afterwards gradually decreasing. On the 21st and 25th February hail-storms; on the latter day very heavy. On the 21st I measured several hailstones three-eighths of an inch in diameter, and on the 25th many were full half an inch.	
21	Ditto . . .	Sirius. 127 47 0	—	—	—	—		
22	Ditto . . .	⊙ 139 50 30	—	—	—	—		
24	Ditto . . .	⊙ 141 18 40	63	—	—	—		

All the observations of meridian altitude were made with an artificial horizon. The sun was observed with shades, with which the index error of the sextant was at Tajúrráh  $+2' 15''$ ; but at Angolálla it was found to be  $+3'$ . Sirius was observed without shades, and at Angolálla the index error of the instrument was  $2' 30''$ . It had not been ascertained previously to my departure from Tajúrráh.

## III.—REGISTER OF THE THERMOMETER AT ANKÓBER, MARCH, 1841.

Day.	Noon.	6 P.M.	About Midnight.		6 A.M.	Remarks.
			Time.	Range.		
1	—	—	—	—	—	The <i>astronomical</i> day is used.
2	—	—	—	—	—	
3	—	57	12	48	—	
4	—	—	—	—	—	
5	—	—	—	—	—	
6	—	—	—	—	—	
7	—	57	10 $\frac{1}{2}$	53	49	Thick fog from the E. 10 A.M., which lasted till past noon.
8	—	57	11 $\frac{1}{2}$	49	47	
9	63	57	13 $\frac{1}{4}$	53	50	
10	63	56	13 $\frac{1}{2}$	50	—	
11	59	55	11 $\frac{1}{2}$	49	48	
12	62	55	13	50	48	
13	61	55	13 $\frac{1}{2}$	50	48	10 A.M. heavy rain for above 2 hours, and again 3 $\frac{1}{2}$ P.M. for a short time.
14	61	56	12 $\frac{1}{2}$	49	47	
15	62	55	—	—	—	
16	61	58	15	51	—	
17	56	51	11 $\frac{3}{4}$	54	51	
18	64	58	11	53	50	
19	62	58	13	49	50	11 A.M. thick fog from E., and it continued overcast the whole of these two days.
20	64	56	—	—	48	
21	56	56	12 $\frac{1}{2}$	50	47	
22	61	56	11 $\frac{1}{2}$	51	47	
23	62	58	12 $\frac{1}{4}$	53	—	
24	60	57	13 $\frac{1}{2}$	54	51	
25	60	57	13	51	49	Slight rain 9 A.M., and afterwards fog, which continued all day and night, and next morning very thick. Rain from 9 till 11 A.M. Thunder and lightning during night of 25th, and slight shower next morning. It continued overcast the next two days.
26	63	57	12	52	49	
27	62	57	13 $\frac{1}{4}$	54	51	
28	61	57	11	54	—	
29	64	58	14	52	48	
30	65	58	13 $\frac{1}{2}$	53	50	
31	65	59	11 $\frac{1}{2}$	54	52	

VII.—*Ancient Sites among the Baktiyari Mountains.* Extracted from a communication by A. H. LAYARD, Esq. With Remarks on the Rivers of Susiana, and the Site of Susa, by Professor LONG, V.P.

Karak, December 31, 1840.

I HAVE succeeded in reaching and examining Susan and some other places of interest in the Baktiyari mountains, to which the attention of the Geographical Society was drawn by Major Rawlinson. I left Ispahan in the middle of last September, in company with Schiffeer Khan, a Baktiyari chief, and reached Kala Tul by a road through the mountains, having crossed the highest part of the great chain of Mungasht. The road we followed is not the Yadahi Atúbeg, mentioned by Major Rawlinson (*Geo. Jour.*, vol. ix., p. 83); that road we were unable to take on account of a blood feud existing between Schiffeer Khan and a tribe of Baktiyari.